

WHAT IS CLAIMED IS:

1. A processor unit for executing an event process in response to occurrence of a plurality of predetermined events, comprising:

a program for executing an event process in response to occurrence of said plurality of predetermined events, said processor unit,

wherein said program comprises:

a plurality of tasks each of which includes at least one event process which is executed in response to occurrence of one of said plurality of predetermined events;

an activation request program for requesting activation of a task which includes an event process corresponding to an event in response to occurrence of said event; and

a real time operating system for activating said task in response to the request for activation of said task,

wherein said activation request program stores identification information on said event process corresponding to said event in a storage area in response to occurrence of said event, if said task includes an event process other than said event process corresponding to said event,

wherein said task, which is activated by said real time operating system, obtains the identification information on said event process from said storage area if said task includes a plurality of event processes, and executes said event process corresponding to the obtained identification information, and

wherein at least one specific event is selected from said plurality of predetermined events, and an event process corresponding to said specific event is included in a dedicated task, which is created as one of said plurality of tasks for executing only one event process, so that said dedicated task identifies the event process corresponding to the specific event for execution without obtaining identification information from said storage area when said dedicated task is activated.

2. A processor unit as in claim 1,

wherein one of a plurality of priority levels is assigned to each of said plurality of tasks and said event process included therein, and a same priority level is assigned to a task and an event process included therein, and

wherein said real time operating system activates said task in response to the request for activation of said task if a priority level of said task is higher than a priority level of an active task.

3. A processor unit as in claim 1,

wherein a cyclic event which occurs in a cycle is selected as said specific event.

4. A processor unit as in claim 1,

wherein said processor unit executes an event process in response to the occurrence of one of said plurality of predetermined events for controlling a predetermined object,

and

wherein a cyclic event which occurs in synchronous with a run cycle of said predetermined object is selected as said specific event.

5. A processor unit as in claim 1,

wherein an event, which is not eliminated from said plurality of predetermined events when a system in which said processor unit is incorporated is modified, is selected as said specific event.

6. A processor unit as in claim 1,

wherein an event, in response to which it is unnecessary that said activation request program passes data to a task which includes a corresponding event process, is selected as said specific event.

7. A processor unit as in claim 1,

wherein a shared task of a priority level is created for each of said plurality of priority levels, and said shared task includes at least one event process which is assigned a priority level same as a priority level of said shared task and is other than said specific event.

8. A processor unit as in claim 4,

wherein said predetermined object controlled by said processor unit is an engine of a vehicle.

9. A processor unit as in claim 8,

wherein the cyclic event selected as said specific event is an event which occurs in synchronous with an engine cycle.

10. A record medium which stores a program for executing an event process in response to occurrence of a plurality of predetermined events,

wherein said program comprises:

a plurality of tasks each of which includes at least one event process which is executed in response to occurrence of one of said plurality of predetermined events, wherein one of a plurality of priority levels is assigned to each of said plurality of tasks and said event process and a same priority level is assigned to a task and an event process included therein;

an activation request program for requesting activation of a task which includes an event process corresponding to an event in response to occurrence of the event; and

a real time operating system for activating said task in response to the request for activation of said task,

wherein said activation request program stores identification information on said event process corresponding to said event in a queue in response to occurrence of said event, if said task includes an event process other than said event process corresponding to said event,

wherein said task, which is activated by said real time

operating system, obtains the identification information on said event process from said queue if said task includes a plurality of event processes, and executes said event process corresponding to the obtained identification information, and

wherein at least one specific event is selected from said plurality of predetermined events, and a event process corresponding to the specific event is included in a dedicated task, which is created as one of said plurality of tasks for executing only one event process, so that said dedicated task identifies the event process corresponding to the specific event for execution without obtaining identification information from said queue when said dedicated task is activated.

11. A system for executing event processes in response to occurrence of a plurality of predetermined events, comprising:

a central processor unit (CPU); and

memory means coupled to said CPU, said memory means including software means executed by said CPU,

wherein said software means comprises:

a plurality of tasks each of which includes at least one event process, wherein one of a plurality of priority levels is assigned to each of said plurality of tasks and said event process, and a same priority level is assigned to a task and an event process included therein;

an activation request program for requesting activation of a task which includes an event process corresponding to an event in response to occurrence of said

event; and

a real time operating system for activating said task in response to the request for activation of said task if a priority level of said task is higher than a priority level of an active task,

wherein said activation request program stores identification information on said event process corresponding to said event in an area of said memory means in response to occurrence of said event, if said task includes an event process other than said event process corresponding to said event,

wherein said task, which is activated by said real time operating system, obtains the identification information on said event process from said area of said memory means if said task includes a plurality of event processes, and executes said event process corresponding to the obtained identification information, and

wherein at least one specific event is selected from said plurality of predetermined events, and an event process corresponding to said specific event is included in a dedicated task, which is created as one of said plurality of tasks for executing only one event process, so that said dedicated task identifies the event process corresponding to the specific event for execution without obtaining identification information from said area of said memory means when said dedicated task is activated.

12. A method for executing an event process in real time on

a computer in response to one of a plurality of predetermined events, said method comprising the steps of:

creating a plurality of tasks and assigning one of a plurality of priority levels to each of said plurality of tasks;

creating a plurality of event processes corresponding to said plurality of predetermined events and assigning one of said plurality of priority levels to each of said plurality of event processes;

dividing said plurality of event processes into said plurality of tasks so that each of said plurality of event processes is included in a task of a priority level same as a priority level of the event process;

requesting activation of a task which includes an event process corresponding to an event in response to occurrence of said event;

storing an ID of said event process in a queue in response to occurrence of said event if said task in which said event process is included includes an event process other than said event process;

activating said task if a priority level of said task is higher than a priority level of an active task;

said task obtaining the ID of said event process from said queue and identifying said event process based on the obtained ID if said task is activated; and

said task executing said identified event process,

wherein at least one specific event is selected from said plurality of predetermined events, and an event process

